Abstract

This paper presents a band-notched rectangular slot antenna for Ultra Wide-Band (UWB) communication which is designed on a dielectric substrate with relative permittivity ($\varepsilon_r$) of 4.4, thickness of 1.6 mm and loss tangent ($\tan \delta$) = 0.002. This antenna is designed to be used in frequency band of 2.44–10.44 GHz. Band notched characteristics of antenna to reject the frequency band of 5.15–5.825 GHz, which is limited by IEEE 802.11a, is realized by rectangular slot etched on the radiator. Parametric study of rectangular slot of proposed antenna also has been investigated. The antenna with optimal parameters obtained from parametric study is simulated.
UWB Rectangular Slot Antenna with Band-notched Characteristics

References


Index Terms

Computer Science

Communications
Keywords
Ultra-wide Band (uwb) Antenna  Circular Monopole  Band-notch  Rectangular Slot  Wlan